

What is claimed is:

1. A method for transforming a plant plastid which the following steps of:

5 A. constructing a recombinase expression vector for nuclear transformation of a plant which contains a targeting sequence for a plastid and a nucleotide sequence of a recombinase protein active in a plastid;

10 B. preparing a primary plant transformant, wherein a nuclear transformed plant is prepared by using said recombinase expression vector;

15 C. constructing a plastid transformation vector which contains at least one nucleotide sequence of a target gene and a selective marker gene, respectively, which can be expressed in said plastid; and

D. preparing a secondary plant transformant from said primary plant transformant obtained in (b) by using said plastid transformation vector.

20 2. The method for transforming a plant plastid according to Claim 1, wherein said recombinase gene is derived from a prokaryote.

25 3. The method for transforming a plant plastid according to Claim 1, wherein said selective marker is selected from the group consisting of 16S subunit of a ribosome resistant to spectinomycin or streptomycin; a protein resistant to antibiotics such as spectinomycin, streptomycin, kanamycin and the like; an enzyme such as cytosine deaminase, betaine

aldehyde dehydrogenase (BADH) and the like; and/or green fluorescence protein (GFP).

4. A method for transforming a plant plastid which comprises the
5 following steps of:

(a) constructing a plastid transformation vector which contains
at least one nucleotide sequence of a target gene and a
selective marker gene, respectively, which can be expressed
in said plastid; and preparing a secondary plant
10 transformant from said plant transformed by a recombinase
gene active in a plastid by using said plastid transformation
vector.

5. The method for transforming a plant plastid according to Claim 4,
15 wherein said selective marker is selected from the group consisting of 16S
subunit of a ribosome resistant to spectinomycin or streptomycin; a
protein resistant to antibiotics such as spectinomycin, streptomycin,
kanamycin and the like; an enzyme such as cytosine deaminase, betaine
aldehyde dehydrogenase (BADH) and the like; and/or green fluorescence
20 protein (GFP).

6. The method for transforming a plant plastid according to Claim 5,
wherein said recombinase gene is derived from a prokaryote.